

IN THE CLAIMS

Applicants hereby present the claims, their status in the application, and amendments thereto as indicated:

1. (Cancelled)

2. (Currently Amended) An image sensor comprising a number of light sensor circuits arranged to form a matrix of pixels, each of said circuits being capable of producing in a photoelectric converting element a sensor current proportional to the quantity of light falling thereon and converting the produced current into a voltage signal by swinging using a MOS type transistor with a logarithmic output characteristic in a weak inverse state, and a voltage switching-over circuit for changing a drain voltage of each of said MOS type transistors for each of said pixels to a value lower than a normal value for a specified time to remove a charge accumulated in a parasitic capacitor capacitance of the photoelectric element before detecting a light signal from each pixel.

3. (Currently Amended) An image sensor comprising a number of light sensor circuits arranged to form a matrix of pixels, each of said circuits being capable of producing in a photoelectric converting element a sensor current proportional to the quantity of light falling thereon and converting the current into a voltage signal by a MOS type transistor with a logarithmic output characteristic in a weak inverse state, a pixel-line selecting circuit for successively selecting pixel lines, a pixel selecting circuit for successively selecting pixels in one selected line, both of said selecting circuits cooperating together to successively scan and read sensor signals from respective pixels in a time series, and a voltage switching-over circuit for changing a drain voltage of each of said MOS MOS type transistors for respective pixels in a selectable pixel line to a value lower than a normal value for a specified time to remove a charge

Patent Docket:
LA.7272-112.US/10302902

accumulated in a parasitic capacitor, capacitance of the photoelectric element before selecting each of the pixel lines.

4. (Currently Amended) An image sensor as defined in claim 2 or 3, characterized in that each of the light sensor circuits is composed of said MOS type transistor for converting a sensor current flowing in a photoelectric converting element to a voltage signal by using its logarithmic output characteristic in a weak inverse state, a second transistor for amplifying the voltage signal converted by said MOS type transistor and a third transistor for outputting a sensor signal corresponding to the voltage signal amplified by said second transistor for amplifying the voltage signal at a specified moment of time.

5. (Original) An image sensor as defined in claim 3, characterized in that a sample-and-hold circuit is provided on an output side of each pixel in each pixel line.